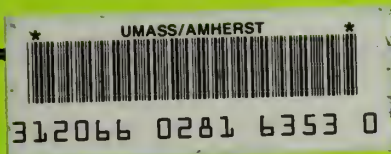


MASS. UM 105.2:P 94



PROMOTING ASSISTIVE EQUIPMENT RESOURCE MANUAL FOR ASAPs



GOVERNMENT DOCUMENTS
COLLECTION

NOV 03 2001

University of Massachusetts
Depository Copy

Alison S. Gottlieb, Ph.D.



*Gerontology Institute
University of Massachusetts Boston
May 2000*

**PROMOTING ASSISTIVE EQUIPMENT
RESOURCE MANUAL FOR ASAPs**

Alison. S. Gottlieb, Ph.D.

Gerontology Institute
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393
617-287-7300
FAX: 617-287-7080

<http://www.geront.umb.edu/current/assistequip/reports/resourcemanual.pdf>

May 2000

INTRODUCTION

This resource manual was funded by a grant from the Home Care Research Initiative of The Robert Wood Johnson Foundation. The manual was developed as a dissemination project culminating from the three-year research and demonstration project, “Extending Home Care Effectiveness Through Expanded Use of Low-cost Adaptive Equipment.” The research and demonstration project was conducted by researchers from the Gerontology Institute and staff from the Massachusetts Executive Office of Elder Affairs (EOEA) and was carried out through two Aging Services Access Points (ASAPs), West Suburban Elder Services and South Shore Elder Services. The manual combines insights gained from the demonstration project, resources collected by staff from the Gerontology Institute, and input and feedback from members of a working group established for this dissemination project.

ACKNOWLEDGMENTS

We would like to acknowledge members of the working group: Joan Butler of Minute Man Home Care; Nancy Munson and Helen Turner of Bristol Elder Services; Ed Flynn and Peg Nylen of South Shore Elder Services; Linda Cragin, Judy Cranney, and Ellen Birchander of EOEA; and Thayer McCain, Director of Thriving at Home; and Francis Caro of the Gerontology Institute. We would like to acknowledge staff from the two ASAPs that participated in the demonstration project, which led up to development of this manual: Susan Temper, Teri Checket, and all the case managers of WSES; Ed Flynn, Peg Nylen, and all the case managers of SSES. We also acknowledge Lona Choi, graduate assistant at UMB, who assisted preparing materials for the manual.

TABLE OF CONTENTS

Introduction/Acknowledgements.....	i
I. Overview: Potential Benefits of Assistive Equipment for Frail Elders.....	1
II. Administrative and Operational Issues.....	3
A. Professional Expertise.....	3
B. Equipment Purchasing.....	4
C. Equipment Ordering and Tracking System.....	4
D. Assembly and Installation.....	4
E. Client Follow-Up.....	5
F. Different Approaches to Assistive Equipment Services.....	5
III. Identifying Potential Candidates for Assistive Equipment.....	6
A. How will case managers recognize clients who might benefit from (more) assistive equipment?.....	6
B. How will case managers know when it is appropriate for them to introduce assistive equipment on their own and when they should refer the client for a professional consultation?.....	10
IV. Legislation Associated with Assistive Technology.....	13
A. Americans with Disabilities Act of 1990.....	13
B. Massachusetts Department of Elder Affairs – Home Care Program.....	13
C. Medicare.....	14
D. Older Americans Act of 1965.....	15
E. The Rehabilitation Act of 1973.....	15
F. Social Security Act, Budget Reconciliation Act of 1986.....	17
G. The Technology-Related Assistance for Individuals with Disabilities Act.....	19
H. The Telecommunication Act of 1996.....	20
V. Assistive Equipment Resource Information.....	21
A. Information and Referral.....	21
B. Sources of Assistive Equipment.....	25
VI. References.....	26

I. OVERVIEW: POTENTIAL BENEFITS OF ASSISTIVE EQUIPMENT FOR FRAIL ELDERS

Many older people are affected by impairments that limit their capacity to care for themselves. The costs of providing formal personal and home care services to address these self care limitations can be substantial. There are many situations, however, where elders could use low-cost assistive equipment to compensate for ADL and IADL deficits stemming from physical and sensory impairments. Many older people are already familiar with and use some assistive devices. Most commonly, older people use hearing aids to assist with hearing, eyeglasses and magnifiers to help with vision, and medication organizers to help manage multiple medications. Other items often used by frail elders are mobility aides (such as walkers, canes, or wheelchairs), bathing devices or bathroom adaptations (a tub seat or grab bars), or devices received through a rehabilitation clinic while recovering from a stroke or hip replacement (sock gadget, reacher). Older people may also make greater use of microwave ovens, rubber jar openers, or clothing without fasteners as their dexterity, strength and balance decline. Many older people have demonstrated ingenuity in devising their own personal solutions to their limitations, some safer than others.

In addition to its potential for increasing or sustaining functional independence, assistive equipment may promote elders' self-efficacy and self-esteem. Elders who are able to engage in leisure or household activities they find meaningful are less likely to experience depression. On the other hand, if assistive equipment proves to be too difficult or cumbersome to use or does not make activities easier, it is likely to be abandoned (Gitlin, Luborsky, & Schemm, 1998).

In promoting assistive equipment among elders, it is, therefore, critical to use a consumer-centered approach, one that incorporates not only an appraisal of functional limitations, but also of a client's home environment, interests, and personal and cultural values.

Many elders are not aware of or familiar with assistive equipment (George Binns, Clayden & Mulley, 1998), despite reported increases in the use of devices (LaPlante, Hendershot & Moss, 1992) and the recognized potential of assistive equipment for increasing independence and improving quality of life (Gitlin, Levine, & Geiger, 1993). A recommendation from the 1997 report based on the Coordinated Aging Rehabilitation Disability Services (CARDS) Project, which was funded by the Administration on Aging (AoA) and conducted through the Massachusetts Executive Office of Elder Affairs (EOEA), was that "access to assistive technology, including adaptive equipment and home modifications, should be made easier because it provides cost effective alternatives and increases autonomy and independence."

In 1997, The Gerontology Institute at the University of Massachusetts Boston (UMB) and EOEA collaborated on a research and demonstration project to disseminate simple, low-cost assistive devices to elderly home care clients in two Aging Services Access Points (ASAPs). Case managers from the two ASAPs received training on common assistive devices and how to identify clients who might benefit from assistive equipment and match these clients with appropriate devices. Case managers successfully assisted nearly 200 clients select equipment. These clients received on average four assistive devices associated with meal preparation, dressing, bathing, general mobility, and expressive activities. Some of the most commonly

distributed items were can and jar openers, reachers, wheelchair or walker accessories, and bathing aids, such as long-handled brushes. Most of the clients were satisfied with their equipment and reported using it.

The purpose of this manual is to provide information to assist ASAPs in their efforts to highlight the value and effectiveness of assistive equipment in serving elders in the community. The manual includes ideas and options for streamlining and developing business operations to facilitate acquisition of equipment, strategies for identifying clients who may benefit from assistive equipment, guidelines for determining when to refer for occupational therapy assessments, and guidelines for promoting the use of assistive equipment by elderly clients.

The manual also describes federal and state legislation relevant to professional assessment and access to assistive equipment and outlines potential funding sources for assistive equipment and services. Illustrative case examples from the demonstration project are provided.

II. ADMINISTRATIVE AND OPERATIONAL ISSUES

In order to facilitate the provision of assistive equipment to elders, it is helpful to have a structure in place to streamline the process. This section addresses business operations issues that were encountered in the demonstration and offers suggestions for implementation.

A. Professional expertise

A source of professional expertise to provide staff training and act as consultant on assistive equipment issues will enhance information and education.

ASAPs may identify a trained individual as a source of professional expertise to provide staff training and act as a consultant on questions around assistive equipment (assessment, funding, client training, referral to appropriate professional resources, etc.). This expertise may be available through an ASAP's staff nurse or may be accessed through provider contracts (for example, a Certified Home Health Agency or Rehabilitation Hospital).

Training on available assistive equipment will help staff maximize elders' independence.

ASAPs may arrange for staff training to provide case managers with a background on the potential of assistive equipment for promoting independence among elder clients and skills to identify clients who might benefit from assistive equipment. Training should include information on low-cost assistive equipment, the client circumstances for which particular items are indicated, and indications for referral for professional evaluation. Strategies for follow-up to ensure that clients are utilizing and benefiting from the equipment are equally important.

An assistive equipment component may be included in new case manager training. Case managers who are most comfortable with or committed to promoting assistive equipment might serve as mentors to incoming case managers. Periodic refresher trainings are needed to update case managers on new developments in assistive technology, sources of equipment, and changes in third-party funding requirements.

Long-term benefits of case manager training are strengthened if case managers are provided hands-on opportunities to become familiar with popular, commonly used devices. ASAPs or the contracted trainer may assemble a demonstration kit to assist with ongoing training.

B. Equipment purchasing

ASAPs must adhere to standard procurement procedures for purchasing assistive equipment.

It is helpful to have documented procedures in place that clearly explain the process for acquiring equipment within the guidelines set forth in the ASAP contracts. Except for limited items considered medically necessary (such as mobility aids and hospital beds), it is unlikely that clients will be able to access third-party funding for assistive equipment. Most low-tech assistive devices, however, can be purchased for modest amounts, and ASAPs may decide to authorize funds for them. Under state Home Care regulations, assistive equipment is a permitted expense (within the adaptive housing services category), using the normal procurement process. Title III funds, although limited, can also be used for assistive equipment. Alternatively, case managers may work with families to identify devices that clients or family members might purchase themselves. They may also provide information on available sources.

C. Equipment ordering and tracking system

A documented procedure for ordering and tracking assistive devices will facilitate acquisition and follow-up.

In recognition of pressing demands on case managers' time, it is important to establish an efficient method to order and track assistive equipment that has been identified for clients. Contracts with companies that provide assistive equipment should be in place prior to initiating client interest. When evaluating requests for proposals (RFPs) for contracts for the provision of assistive equipment, ASAPs may consider price, delivery charges, available inventory, and return policies. ASAPs should establish a computerized system for monitoring orders -- to ensure items are delivered, to track back orders, and to handle billing. A staff person should be designated to oversee these activities.

D. Assembly and installation

Procedures around equipment assembly and installation need to be established.

It is important to develop procedures for handling devices that require assembly or installation. Where possible, ASAPs should make use of existing resources to do these activities. For elders living in senior housing, maintenance personnel will often install items. Family members may be able to assist with the process of installation. An additional advantage of involving family members for installation is that they can be naturally enlisted to encourage and help the elder use the device. For more extensive installations (such as permanent mounted grab bars or wheelchair ramps), community volunteer organizations could be enlisted.

E. Client follow-up

Arranging for client follow-up around assistive equipment is important.

Research has shown that introduction of assistive equipment is most often successful when clients are provided a series of short trainings on the devices in their own home. As was learned through the Massachusetts demonstration, it is not effective to have equipment orders mailed directly to clients. Ideally, someone should deliver the devices in person to be certain clients understand how to use the devices and can arrange for assembly and/or installation. Involving a family member or other informal caregiver in introducing the equipment and assisting with the follow-up training may provide a solution in many instances. Case managers may systematically contact clients by telephone to inquire about and encourage use of devices. Where clients express difficulty with items, a follow-up visit may be arranged. In some instances, this may result in the need to consult with or refer the client to a certified specialist.

F. Different approaches to assistive equipment services

ASAPs should develop individual approaches for assessment, dissemination, and client follow-up for assistive equipment. Three models are proposed that could be adopted independently or in combination:

- Vendor contracts. ASAPs may arrange for professional occupational therapy evaluations through contracts with certified vendors. Vendors may be used in instances where case managers recognize the potential benefits of assistive equipment for a client but believe that the situation is sufficiently complex or time intensive to warrant a full evaluation by a specialist. Alternatively, some ASAPs may choose to use occupational therapists as the primary means for disseminating assistive equipment (assessment, distribution, and training). Funding for occupational therapy services can often be arranged through Medicare, Medicaid, or HMOs. ASAPs may also decide to allocate discretionary funds for assistive equipment assessments, with the expectation that the long-term client benefits will outweigh the initial cost outlay.
- Staff specialist. Some ASAPs may designate a staff person dedicated to developing expertise around assistive equipment (an occupational therapist or certified assistive technology specialist). This person could serve as an on-site consultant and handle assessment, training, and follow-up for clients whom other case managers identify as potential beneficiaries of assistive equipment.
- Case management “Extenders”. ASAPs may devise means whereby case managers or Occupational Therapy staff specialists do initial identification of clients’ assistive equipment needs (including assessment and equipment selection) but identify other staff to provide follow-up activities (arrange for delivery; train and encourage clients on proper use of the equipment; and make follow-up phone calls or home visits). These case management “Extenders” could be family members or para-professionals (such as supervised student occupational therapy interns). The case manager Extenders would need assistive equipment

training and access to professional consultation when indicated, as well as oversight by a designated professional.

III. IDENTIFYING POTENTIAL CANDIDATES FOR ASSISTIVE EQUIPMENT

The following indicators are intended to help case managers think about situations where clients might benefit from assistive equipment. The accompanying diagram demonstrates a variety of scenarios. The presence of certain indicators will suggest that clients or caregivers may benefit from assistive equipment to promote independence or to address safety issues. In this case, either an occupational therapy evaluation will be required or equipment may be ordered. Other indicators suggest that consideration of assistive equipment is ill-advised (see Figure 1).

A. How will case managers recognize clients who might benefit from (more) assistive equipment?

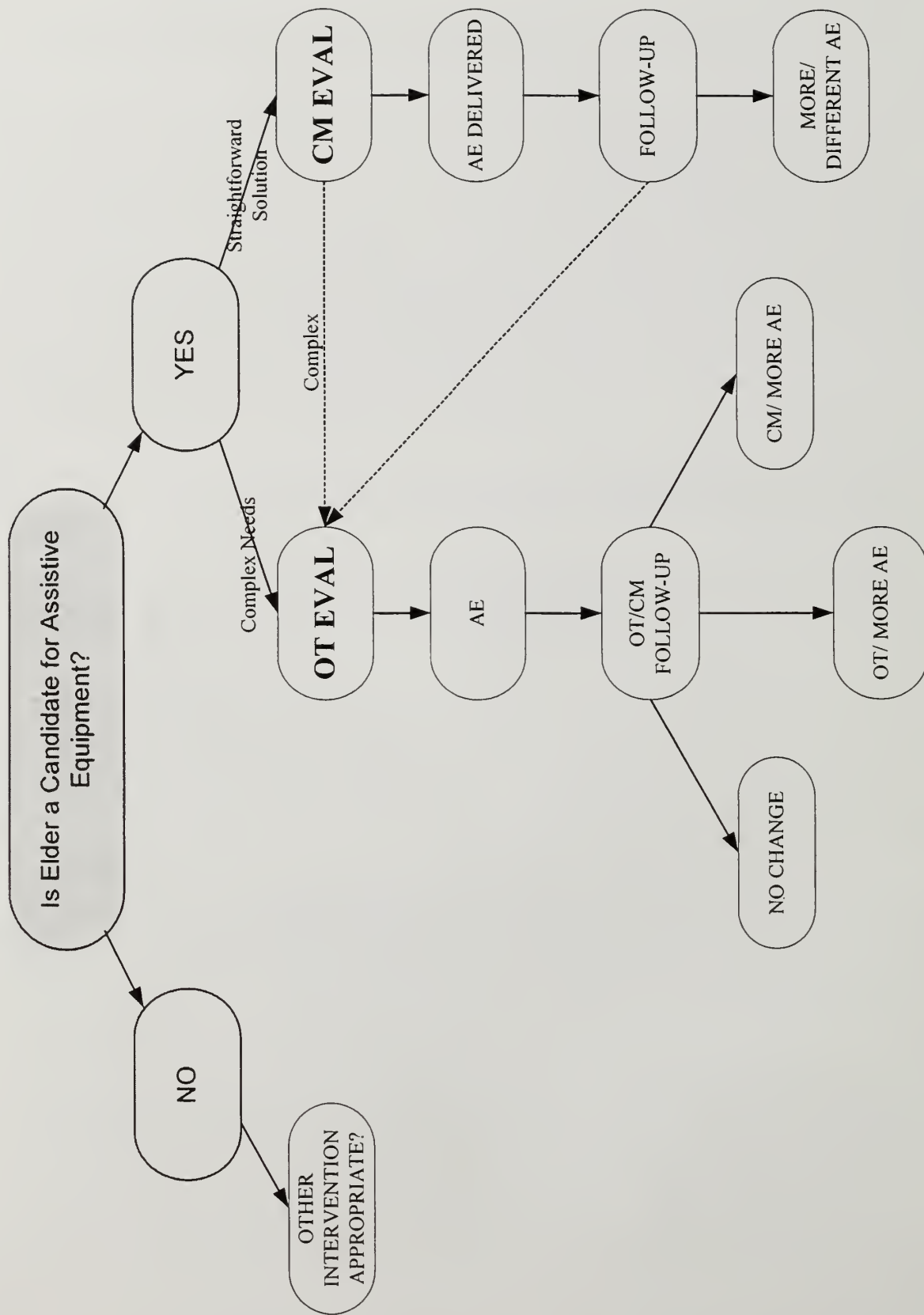
1. Indicators for assistive equipment to promote independence.

The client demonstrates several of the following:

- Is motivated to be independent and engaged in activities he/she finds meaningful
- Is alert
- Is inquisitive, with a capacity for flexibility and adaptability
- Has seemed intrigued by readily available “gadgets” (seen in catalogs or on TV)
- Exhibits relatively high energy
- Indicates limited (or declining) ability to carry out one or more activities of daily living (meal preparation, dressing, bathing) or hobby
- Recognizes these limitations and may express frustration at finding certain activities increasingly difficult, tiring, or unsafe
- Is not already well-equipped with assistive equipment that addresses these functional areas
- Has demonstrated willingness and successful utilization of some devices (including creative use of generic tools - such as pliers to open jars)
- Has requested assistive equipment
- Has informal supports available to provide follow-up

PROMOTING ADAPTIVE EQUIPMENT THROUGH ASAPs

Figure 1.



Indicators for assistive equipment to promote independence:

Mrs. Ruzzo is 68, widowed, and lives alone. She has chronic health problems, limited hand strength, and difficulty bending and reaching. Mrs. Ruzzo's apartment is equipped with a microwave oven and tub grab bar, but she has no other assistive equipment. She feels lonely, having raised six sons, and discouraged by her back pain that limits her from being active and independent. Her first priority is to increase her ability to prepare meals and enjoy life more.

Assistive equipment solutions. With assistance from her case manager, Mrs. Ruzzo received a jar opener that requires little effort, a no-slip cutting board, and easy-opening food containers. She received a reacher that she uses to retrieve food packages from cupboards and to pick things up from the floor.

She bought a magnifier to read the small print of food preparation directions. She also uses the magnifier to read dates on coins, allowing her to work on her penny collection. The items Mrs. Ruzzo received help her maintain her familiar kitchen habits and enjoy her hobby.

The case manager also helped Mrs. Russo arrange for an overall assessment of her living situation by an Occupational Therapist, funded by Medicaid, to identify other solutions that would help her maintain her life-style.

2. Indicators of equipment to assist caregivers and to address safety concerns:

The client demonstrates one or more of the following:

- Is unable to bathe or toilet independently and lacks assistive equipment
- Has difficulty with balance and mobility
- Has difficulty with transfers and getting in/out of chairs or bed
- Lacks awareness of safety concerns but is responsive to cues
- Has informal caregiver(s) who are overtaxed by the caregiving or safety demands

Indicators for equipment to address safety concerns:

Mr. Wallace, age 83, lives alone. He has problems with steadiness and balance and is increasingly dizzy. He experiences increasing difficulty moving around his apartment. Lately, he has been having trouble getting up from a seated position or out of bed. Getting on and off the toilet is also difficult. Mr. Wallace is embarrassed about his need to rely on family members or neighbors, especially in the bathroom.

Assistive Equipment Solutions: Based on an occupational therapy assessment, Mr. Wallace received a portable lift cushion to help him get out of chairs and a bed pull-up device that allows him to pull himself up from a lying position using his arm strength. His building maintenance staff installed a raised toilet seat with grab bars and a rail on the wall of his long hallway to provide additional support for walking. The occupational therapist is helping him apply for funding for a pneumatic lifter seat that would be more effective and reliable than the portable cushion.

The equipment that Mr. Wallace received allows him to maintain his independence and preserve his dignity in providing for self-care, increases his safety while performing these activities, and reduces caregiver demands.

3. Indicators that other interventions may be more appropriate (e.g., focus on assistance to facilitate provision of direct care and enhanced safety.)

The client demonstrates some of the following:

- Is very weak and frail
- Is confused
- Demonstrates little motivation to carry out daily living activities without personal assistance
- Indicates cultural or gender-based patterns that support maintaining the status quo
- Is already well-equipped with assistive equipment
- Does not use existing assistive equipment (although this may suggest need for re-evaluation for more appropriate equipment)
- Has an absence of interested informal caregiver(s)

B. How will case managers know when it is appropriate for them to introduce assistive equipment on their own and when they should refer the client for a professional consultation?

1. Circumstances suggesting case managers should assess clients for and introduce assistive equipment on their own *:

- The client has many of the indicators for assistive equipment to promote independence, as listed in A. above, and...
- The client has difficulty with discrete tasks for which there are explicit, safe equipment options (e.g., difficulty tying shoe laces - adaptive laces; difficulty washing feet or back - long-handled bath brushes; client who uses a walker and has difficulty carrying laundry or food items - walker basket)

* Case managers should always be cognizant that they may only be seeing some of the problems and that these discrete tasks may be red-flag indicators of more generalized difficulties that should be addressed by an Occupational Therapist.

Circumstances suggesting case managers should assess clients for and introduce assistive equipment on their own:

Mrs. Jones, age 75, is described by her case manager as being “fiercely independent.” She has minor arthritic changes in her hands, limiting her ability to do some fine motor tasks requiring moderate grip strength. Mrs. Jones was already using some assistive equipment for bathing and dressing that she had received from a rehabilitation hospital. She was very receptive to more assistive equipment, but didn’t know what was available and could not shop around to look for them due to her limited mobility.

Assistive Equipment Solutions: Mrs. Jones and her case manager brainstormed additional solutions to assist with bathing and grooming, dressing, and painting (a hobby she had taken up through free classes at the senior center). She selected elastic shoelaces (eliminating the need to tie her shoes), a long-handled bath brush, a terry cloth wash mitt into which she slides the bar of soap, and a tube squeezer for her toothpaste tube. She and her case manager realized she could use additional tube squeezers to attach to her oil paint tubes. Mrs. Jones also purchased a gardening apron with many pockets, which makes her painting supplies easily accessible.

2. Circumstances suggesting the need for professional consultation or therapeutic intervention.

The client has indicators associated with promoting independence (A, above) or safety (B, above), but....

- The client has complex needs (multiple disabilities), such as notable limitations to strength and mobility, or a visual impairment combined with fine motor limitations.
- The case manager has substantial concerns for the client's safety (falling in shower).
- The client needs items that must be properly fitted (cane, walker, wheelchair).
- The client requires extended training on proper usage because the device is complex or because the client's disability requires modifications to the way the device is typically used (client with use of one hand, etc.).
- The client has experienced a recent health episode (stroke, hip replacement, etc.) and would qualify for professional rehabilitation services with third party funding.
- The client has an ongoing, progressive disease or has been impacted in multiple ways by physical or psychological factors.
- The client has cognitive limitations that necessitate more training time than can be provided.
- The case manager recognizes the client's eagerness to be independent but does not feel confident that she/he is familiar enough with available options.
- The client could benefit from an overall evaluation to identify problem areas that the client does not immediately identify or takes for granted.

Circumstances suggesting need for professional consultation or therapeutic intervention:

Mr. Grant, age 80, lives with his wife, age 78. Due to severe arthritis in his hands, Mr. Grant has difficulty completing everyday tasks around the house. He has trouble grasping small items and is unable to open doors, use a key, or button and zipper his clothes. Pain and stiffness in his hands make it difficult to hold utensils, and he is having increasing difficulty feeding himself. He is frustrated by the need to rely on his wife to write checks and to help with dressing and other household activities.

Assistive Equipment Solutions: Mr. Grant's occupational therapist recommended a number of devices to help with fine motor activities. The Grants bought inexpensive door handle levers and several touch-sensitive lamp switches at a home building store that were installed by a neighbor. Mr. Grant now uses a special key grip attached to his house key to lock and unlock his front door. These items have been helpful to his wife as well. The occupational therapist applied foam tubing to Mr. Grant's pencils, pens and toothbrush to provide an easier grip. The OT suggested check and envelope writing guides and also recommended a light-weight, self-closing reacher designed for persons with arthritic fingers and limited hand strength.

At the recommendation of the OT, Mr. Grant purchased a button hook and zipper pull through a mail order catalog. These devices have made it possible for him to dress himself. He purchased eating utensils with built-up handles and a scoop plate to prevent spills. Finally, the Grants also bought easy-to-grasp playing card holders, so they can continue participating in card games with friends.

IV. LEGISLATION ASSOCIATED WITH ASSISTIVE TECHNOLOGY – POLICY AND FUNDING

A. Americans with Disabilities Act (ADA) of 1990 - P.L. 101-336 (ADA)

The ADA requires reasonable accommodation by both public and private entities and ensures equal opportunities in areas of employment, state and local government, public accommodations, transportation, and telecommunications. Aside from requiring employers to make reasonable accommodations to qualified applicants/employees with disabilities, the ADA:

1. Requires state and local government services and programs to be accessible to individuals with disabilities.
2. Stipulates that private entities such as hotels, restaurants, doctors' offices, shopping malls, etc. must ensure that people with disabilities have equal access to their goods and services.
3. Requires phone companies to provide telephone relay services to those who utilize a text telephone (TTY or TDD). *In Massachusetts, the Relay Service number is: Voice-1 (800) 439-0183, TTY-1 (800) 439-2370.*
4. Mandates accessible transportation under both Title II and Title III (public and private entity). Transportation (bus, train, subway and stations) must be accessible.

ADA and Assistive Technology

As reasonable accommodations for employees with disabilities, employers can provide technology devices such as an alternative keyboard for a computer, large print materials, or a modified work place.

Government offices are required to provide ramps and grab bars.

Private businesses can incorporate assistive technology such as automatic doors, lever door handles, or wider aisles to ensure equal access by customers with disabilities.

B. Massachusetts Department of Elder Affairs - Home Care Program

Provides up to \$200/month in-home care services to eligible clients.
A variety of services are available, including:

Adaptive Housing

Services related to the provision of minor housing adaptations and/or minor home modifications (adaptive equipment) for clients who require this service in order to remain

independent or to improve independence in the community. There is no longer a maximum amount that can be allocated to Adaptive Housing, so long as the total home care services remain within the overall rate of \$200/month.

C. Medicare

Medicare is a national health insurance program for people 65 years of age and older, younger people with disabilities, and people with kidney failure. It is divided into two parts: Part A (Hospital Insurance) and Part B (Medical Insurance).

1. Medicare Part A covers the following services:

- Inpatient hospital care
- Inpatient skilled nursing facility care
- Inpatient psychiatric care
- Home health care
- Hospice care

2. Medicare Part B covers the following services:

- Outpatient hospital services
- Outpatient maintenance dialysis
- Doctor's services
- Diagnostic Tests (lab work)
- Ambulance services
- Other medical services and supplies not covered by Part A (e.g., influenza and hepatitis B vaccines)

3. Assistive Technology/DME Funding under Medicare:

Part A: Medicare pays fully for OT assessment and training if client is homebound. (The definition for "homebound" is quite restrictive basically referring to clients who cannot leave home other than for occasional medical appointments.) Clients must also be in need of "skilled" services and able to make measurable functional gains. The services must be deemed "medically necessary."

Part B: Medicare covers out-patient rehabilitation for non-homebound clients in need of skilled services that are considered "medically necessary" and that are expected to result in measurable functional gains. Skilled nursing is not covered under Part B coverage.

Under Part B coverage, an assigned Medicare provider agrees to accept the Medicare-approved amount as full payment for services and supplies. Medicare pays 80% of the approved amount for the provider after the individual meets the annual Part B deductible. The individual is responsible for the balance, unless he/she has supplemental insurance (or Medicaid) to cover the remaining 20%.

Many elders have Medicare coverage through an HMO. HMO Medicare coverage varies and may include funding for assistive equipment if considered reasonable and necessary.

D. Older Americans Act (OAA) of 1965 – including 1994 Amendments

Major concerns of the OAA (based on the 1994 Amendments) include: income, health, housing, employment, quality of institutional care, socialization, freedom from discrimination, preservation of dignity, and other human rights.

The OAA established the Administration on Aging, which outlines strict guidelines for local administration of supportive services through state Offices on Aging and public service areas (PSAs).

Title III of the OAA provides federal funding for state-provided in-home and community-based services for individuals who are elderly. Services include:

- Transportation
- Home health care
- Legal aid
- Chore and homemaker services
- Information and referral
- Personal care
- Shopping
- Home delivered meals
- Adaptive equipment or devices
- Minor home modifications (up to \$150/client/year)
- Social activities
- Case management
- Health services

E. The Rehabilitation Act of 1973 – including 1992 Amendments

Principles of the Rehabilitation Act

1. Disability is a natural part of the human experience and in no way diminishes the right of individuals to:
 - Live independently
 - Enjoy self-determination
 - Make choices
 - Contribute to society
 - Enjoy full inclusion and integration in the economic, political, social, cultural, and educational mainstream of society

2. The goals of the “Rehab Act” include providing individuals with disabilities with the **tools** necessary to:
 - Make informed choices and decisions
 - Achieve equality of opportunity, full inclusion and integration in society, employment, and **independent living**, as well as economic and social self-sufficiency
3. Other principles address work as a valued activity, enforcement of Sections 504 and 508 of the Rehabilitation Act, and the provision of vocational rehabilitation services.

Vocational Rehabilitation Services (VR).

A wide range of services with the aim of improving a person’s employability may be provided by VR if outlined in the individual’s Individualized Work Related Plan (IWRP). VR programs require, to the extent appropriate, an evaluation of assistive technology needs as a routine part of program eligibility determination and selection of services.

Independent Living Centers (ILC).

The Rehabilitation Act mandates comprehensive services for independent living that increase an individual’s ability to live independently and to function within the family and community. The Rehabilitation Act outlines many services that would benefit persons who are aging. There are four core services each ILC must provide:

- Advocacy
- Information and Referral
- Independent Living Skills Training
- Peer Support

ILCs do serve elders in Massachusetts, but are only able to provide limited assistance, which may not include assistance with assistive equipment.

Section 504 of the Rehabilitation Act

A civil rights statute that requires equal access and opportunity to persons with disabilities and persons who are aging. Requires all federally-funded agencies or programs to meet certain standards of physical accessibility in general and reasonable accommodation to overcome disability-related barriers in the workplace. Also, prohibits discrimination against persons with disabilities in education, employment, social service programs, and any other activity or program receiving federal monies.

F. Social Security Act, Budget Reconciliation Act of 1986 (P.L. 99-509)

1. Medicaid (Title XIX) Services

Medicaid, established under Title XIX of the Social Security Act, is a federal and state funded program that pays for “medically necessary” medical services and equipment for individuals who meet its eligibility requirements (means-tested). Each state must provide 11 mandatory services to its recipients with the option to include up to 30 additional services in its Medicaid program.¹

Assistive technology/durable medical equipment (DME) may be considered for payment if it fits the definition of a Medicaid service provided in the state. Each state decides under which categories assistive technology/durable medical equipment will be provided. (For example, augmentative communication devices may be defined under DME, speech therapy, or other categories).

Services available to Massachusetts Medicaid (MassHealth) recipients:
(Only those relevant to elders are listed. Services that might include assistive technology devices are underlined.)

- Acute inpatient hospital services
- Adult day health services
- Adult family care services
- Ambulatory surgery services
- Audiologist services
- Behavioral health services (mental health and substance abuse)
- Chiropractor services
- Chronic disease and rehabilitation inpatient hospital services
- Community health center services
- Day habilitation services
- Dental services
- Durable medical equipment and supplies
- Group adult foster care services
- Hearing aid services
- Home Health services
- Hospice services
- Laboratory services

¹ Massachusetts’ definition: “A service is ‘medically necessary’ if it is reasonably calculated to prevent, diagnose, prevent the worsening of, alleviate, correct, or cure conditions in the member that endanger life, cause suffering or pain, cause physical deformity or malfunction, threaten to cause or to aggravate a handicap, or result in illness or infirmity; and there is no other medical service or site of service, comparable in effect and available or suitable for the member requesting the service, that is more conservative or less costly to DMA (Division of Medical Assurance). Medically necessary services must be of a quality that meets professionally recognized standards of health care, and must be substantiated by records including evidence of such medical necessity and quality.”

- Nurse practitioner services
- Nursing facility services
- Orthotic services
- Outpatient hospital services
- Oxygen and respiratory therapy equipment
- Personal care services
- Pharmacy services
- Physician services
- Podiatrist services
- Prosthetic services
- Rehabilitation services (including physical, occupational, and speech/language therapy)
- Renal dialysis services
- Speech and hearing services
- Therapy services
- Transportation services
- Vision care
- X-ray/radiology services

2. Assistive Technology/DME Funding (under Medicaid in MA)

Assistive technology/DME play an important part in rehabilitative and preventative services provided by Medicaid. Rehabilitative services may include “any medical or remedial services recommended by a physician or other licensed practitioner of the healing arts, within the scope of his practice under state law, for maximum reduction of physical or mental disability and restoration of recipients to their best possible functional level.” (42 C.F.R. Section 440.130(d)).

Rehabilitative services are potential funding sources for assistive technology/DME. The following are covered services related to **DME/assistive technology devices and services**.

- Home health services, including medical supplies and equipment
- Physical therapy
- Speech therapy; speech and hearing services
- Occupational therapy
- Prosthetic devices
- Rehabilitation services
- Hearing aid, audiology, and vision services

Occupational (or other) therapy evaluations must be referred/authorized by a physician. Medicaid will pay for evaluations from the following certified sources²:

- Home health agencies
- Independent therapists

² Each provider type has its own regulations (as to eligibility, etc.)

- Group practices
- Outpatient hospitals (chronic and acute care)
- Rehabilitation clinics

Medicaid pays \$36/hour (\$9/unit - 15 minutes) for assessment services.

For individuals with dual eligibility through Medicare and Medicaid, claims for DME and AE must initially be submitted through Medicare and be rejected before seeking reimbursement from Medicaid. [source: Report from the Governor's Commission on Mental Retardation, 1999]

G. The Technology-Related Assistance for Individuals with Disabilities Act ("Tech Act") of 1988 (P.L. 99-506) and Amendments (P.L.s, 100-407 ; 103-218; and 105-394).

The "Tech Act" was designed to expand the availability of assistive technology devices and services for all individuals with disabilities. It established a nationwide discretionary grant program to assist states in undertaking the development of a "comprehensive statewide program of technology-related assistance."

The initial "Tech Act" allowed each state to design a program based on consumer-driven and consumer-responsive service delivery programs to promote assistive technology.

The "Tech Act" was amended and reauthorized in 1994, mandating states to focus on systems change and advocacy activities. Each state (by 1996) had established statewide technology-related assistance programs.

The Assistive Technology Act of 1998 replaced the Technology-Related Assistance for Individuals with Disabilities Act, but its purposes remained the same.

What does the "Tech Act" do?

1. Defines assistive technology (AT) device as "any piece of equipment or product system, whether off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities" (P.L. 100-407).
2. Defines AT service as "any service that directly assists an individual with a disability in the selection, acquisition, or use of assistive technology devices" (P.L. 100-407).
3. Defines "consumer-responsive" and "consumer-driven" to encourage programs to increase consumer involvement and emphasize consumer satisfaction by: (a) making all programs, entities and activities accessible, meaningful, and needs responsive, and by (b) involving the consumer in decision making, planning, implementation, and evaluation of the program.
4. Is devoted to expanding the use of AT and serves as a catalyst to statewide systems change.

The Massachusetts Assistive Technology Partnership Center (MATP) is the Massachusetts program developed through this Act. (See *Assistive Equipment Resources Information* section for more details.)

H. The Telecommunication Act of 1996

Section 255 of this Act requires manufacturers of telecommunications equipment and providers of telecommunications services to ensure that equipment and services are designed and developed to be accessible to and usable by individuals with disabilities, if readily achievable. (This includes home telephones).

Section 713 of this Act aims to ensure that video services are accessible to individuals who are hearing impaired and/or visually impaired. Specifically, it requires the FCC to study and establish a timetable for closed captioning and video description requirements (for television, etc.).

V. ASSISTIVE EQUIPMENT RESOURCE INFORMATION

A. Information and Referral

ABLEDATA

8455 Colesville Road
Silver Spring, MD 20910
(800) 277-2916; (601) 608-8912 (TTY)
www.abledata.com

National database of information on assistive technology and rehabilitative equipment. Lists over 25,000 products and sources to locate them.

American Occupational Therapy Association
4720 Montgomery Lane
P.O. Box 31220
Bethesda, MD 20824-1220
(301) 652-2682; (800) 377-8555 (TDD); (301) 652-7711 (Fax)
www.aota.org

Information on OT programs and services, assistive equipment, etc.

Bell Atlantic Center for Individuals with Disabilities
280 Locke Drive, 4th Floor
Marlboro, MA 01752
(800) 974-6006 (Voice/TTY)

Provides telephone equipment for Massachusetts residents who are deaf, hard of hearing, deaf/blind, or speech, vision, or mobility impaired.

Better Hearing Institute
P.O. Box 1840
Washington, DC 20013
(800) 327-9355 (Voice/TTY); (703) 750-9302 (Fax)
www.betterhearing.org
E-mail: mail@betterhearing.org

Provides hearing assistance to individuals with uncorrectable hearing loss.

Cape Organization for Rights of the Disabled (CORD)
1019 Iyannough Road, #4
Hyannis, MA 02601
(508) 775-8300; (800) 541-0282 (MA only)
www.capecod.net/cord

Peer Assistive Technology Program. Provides regional information and referral; peer-to-peer networking, advocacy, and training.

Center for Assistive Technology
RERC on Aging
University of Buffalo
515 Kimball Tower
3434 Main Street
Buffalo, NY 14214-3079
(716) 829-3141; (800) 628-2281; (716) 829-3217 (Fax)
www.wings.buffalo.edu/ot/cat/rerca/html
Provides information geared to consumers and service providers on assistive technology products.

Community Access Line
Spaulding Rehabilitation Hospital
Therapeutic Recreation Department
125 Nashua Street
Boston, MA 02114
(617) 720-6659; (617) 722-6244 (TTY)
www.spauldingrehab.org/home
Assistive recreational devices.

Easter Seals Assistive Technology Center
484 Main Street
Worcester, MA 01608
(800) 922-8290
E-mail: trishah@eastersealsma.org
Offers access to hardware, software, and adaptive devices that aid children and adults with disabilities.

Lighthouse International
111 East 59th Street
New York, NY 10022-1202
(212) 821-9200; (800) 829-0500; (212) 821-9713 (TTY); (212) 821-9707 (Fax)
www.lighthouse.org
Provides counseling and training to individuals who are visually impaired.

Massachusetts Assistive Technology Partnership (MATP)
Children's Hospital
1295 Boylston Street, Suite 310
Boston, MA 02215
(800) 848-8867; (617) 355-7820; (617) 355-7301 (TTY)
www.matp.org
Information and training on assistive technology products, services, and funding sources.

Massachusetts Association for the Blind
23A Elm Street
Watertown, MA 02472
(800) 682-9200 (MA only); (617) 738-5110; (617) 738-1247 (Fax)
www.mablind.org
Adaptive equipment program.

Massachusetts Association of Occupational Therapists
(Donna Caira, Administrative Assistant)
57 Madison Road
Waltham, MA
(781) 647-5556
Provides contacts with OT programs; private OT practitioners who can do training.

Massachusetts Commission for the Blind
88 Kingston Street
Boston, MA 02111
(800) 392-6450; (617) 727-5550; (800) 392-6556 (TTY); (617) 727-5960 (Fax)
www.state.ma.us/mcb
Information and referral for Massachusetts residents who are legally or totally blind.

Massachusetts Department of Veterans Services
239 Causeway Street, Suite 100
Boston, MA 02114
(617) 727-3578, Ext. 101, (617) 727-5903 (Fax)
www.va.gov
E-mail: tkelly@vet.state.ma.us
The VA conducts a variety of special programs to assist veterans with medical needs. Provides benefits and services (including some assistive equipment, as well as home and van modifications) for veterans.

Massachusetts Family TIES (Together in Enhancing Support)
Massachusetts Department of Public Health
Bureau of Family & Community Health
250 Washington Street, 4th Floor
Boston, MA 02108
massfamilyties.org/resources/astech.htm
Assistive technology and adaptive equipment resources directory.

Massachusetts State Association for the Deaf
220 Main Street
Malden, MA 02148
(781) 388-9114; (781) 388-9115 (TTY); (781) 388-9015 (Fax)
E-mail: msadeaf@aol.com
Offers a Customer Equipment Program.

National Institute on Deafness and Communication Disorders (NIDCD)
Information Clearinghouse
1 Communication Avenue
Bethesda, MD 20892-3456
(800) 241-1044; (800) 241-1055 (TTY)
www.nih.gov/nidcd

Provides resources for hearing, balance, smell, taste, voice, speech, and language.

New England Index (NEIndex)
200 Trapelo Road
Waltham, MA 02452
(800) 642-0249 (MA only); (781) 642-0248; (800) 764-0200 (TTY); (781) 642-0122 (Fax)
Information and referral service on disabilities.

Project Link
Center for Assistive Technology
University of Buffalo
515 Kimball Tower
3434 Main Street
Buffalo, NY 14214-3079
(716) 829-3141; (800) 628-2281; (716) 829-3217 (Fax)
www.wings.buffalo.edu/go?link
Links consumers with products specific to their individual needs. Consumers receive information on products and distributors, but consumers are protected from solicitations from vendors. (Vendors do not have direct access to consumer information).

Stavros Center for Independent Living, Inc.
409 Main Street
Amherst, MA 01002
(413) 256-6692; (800) 442-1185
E-mail: info@stavros.org
Peer Assistive Technology Program. Provides regional information and referral; peer-to-peer networking, advocacy, and training.

TRACE Research and Development Center
University of Wisconsin - Madison
5901 Research Park Blvd.
Madison, WI 53719-1252
(608) 262-6966; (608) 262-8848 (Fax)
trace.wisc.edu
Focuses on making systems like computers, the Internet, and information kiosks more accessible for everyone through accessible design. Maintains Abledata – see above.

B. Sources of Assistive Equipment **

Assistive equipment (tools for independent living) can be accessed from a variety of sources. The following listing outlines the variety of resources consumers and professionals might investigate when considering adaptive equipment options.

Charitable Organizations

Many charitable organizations have programs, services, or equipment for individuals with disabilities. Some organizations have equipment loan programs, can arrange for home modifications (such as installing ramps or handrails), or are able to provide adaptive equipment for low-income individuals or individuals with no insurance.

Generic Consumer Catalogs

Generic consumer catalogs often include products that have special or “universal design” features to assist older consumers in daily activities.

Medical Supply Stores

Medical supply stores provide agencies and consumers with adaptive equipment needs for home health care (i.e., bathing aids, walkers, canes, etc.).

Public Libraries

Public libraries provide patrons with large print books and books on audiotapes.

Retail Catalogs

Some retail stores have specialized catalogs that focus on items for consumers who need "special need items" (i.e., home health care or dressing items). These catalogs allow consumers to shop for items over the telephone and have products delivered to their homes.

Retail Stores

Many retail stores offer generic products that may be used as assistive devices around the home. Some stores sell or rent specialized equipment to consumers. In some cases, retail stores may offer items at lower cost or may provide better service cost than medical supply stores or specialized catalogs. For example, lift chairs can often be purchased through furniture stores.

Specialized Catalogs

Specialized catalogs offer products to assist with activities of daily living, helping individuals to remain independent in their own homes. These catalogs provide consumers with a variety of health care aids, dressing aids, leisure activity aids, and/or household aids. Other catalogs may target specific impairments (such as loss of hearing, vision, mobility, or communication). Some catalogs target clinical professionals who work with disabled individuals.

** For more detailed information, please refer to the following Gerontology Institute web page, which lists examples of companies or retail stores that provide assistive equipment for consumers and professionals:

<http://www.geront.umb.edu/current/assistequip/reports/resourcemanual.pdf>

VI. REFERENCES

- George, J., Binns, V.E., Clayden, A.D., & Mulley, G.P. (1988). Aids and adaptations for the elderly at home: Underprovided, underused, and undermaintained. British Medical Journal, 296, 1365-1366.
- Gitlin, L.N., Levine, R., & Geiger, C. (1993). Adaptive device use by older adults with mixed disabilities. Archives of Physical and Medical Rehabilitation, 67, 149-152.
- Gitlin, L.N., Luborsky, M.R., & Schemm, R.L. (1998). Emerging concerns of older stroke patients about assistive device use. The Gerontologist, 38(2), 169-180.
- Hartke, R.J., Prohaska, T.R., & Furner, S.E. (1998). Older adults and assistive devices: Use, multiple-device use, and need. Journal of Aging and Health, 10(1): 99-116.
- LaPlante, M.P., Hendershot, G.E., & Moss, A.J. (1992). Assistive technology devices and home accessibility features: Prevalence, payment, need, and trends. (DHHS Publication No. PHS-92-1250). Hyattsville, MD: National Center for Health Statistics.
- Mann, W.C., Ottenbacher, K. J., Fraas, L., Tomita, M. & Granger, C.V. (1999). Effectiveness of assistive technology and environmental interventions in maintaining independence and reducing home care costs for the frail elderly: A randomized controlled trial. Archives of Family Medicine, 8, 210-217.
- Manton, K.G., Corder, L., & Stallard, E. (1993). Changes in the use of personal assistance and special equipment from 1982 to 1989: Results from the 1982 and 1989 NLTCs. The Gerontologist, 33(2): 168-176.

NOTES-

NOTES-

NOTES-

THE GERONTOLOGY INSTITUTE

University of Massachusetts Boston

The Gerontology Institute at the University of Massachusetts Boston addresses social and economic issues associated with population aging. The Institute conducts applied research, analyzes policy issues, and engages in public education. It also encourages the participation of older people in aging services and policy development. In its work with local, state, national and international organizations, the Institute has four priorities: 1) productive aging, that is, opportunities for older people to play useful social roles; 2) health care for the elderly; 3) long-term care; and 4) economic security for older people. The Institute pays particular attention to the special needs of low-income and minority elderly.

Established in 1984 by the Massachusetts Legislature, the Gerontology Institute is a part of the University of Massachusetts Boston. The Institute furthers the University's commitment to the study and development of social policy on aging, and it supports its educational programs in Gerontology, which are in the College of Public and Community Service. One of these is a multidisciplinary Ph.D. program in Gerontology. Through participation in Institute projects, doctoral students have the opportunity to gain experience in research and policy analysis. Institute Personnel also teach in the Ph.D. program.

The largest of the educational programs is the Frank J. Manning Certificate Program in Gerontology, which prepares students for roles in aging services. Most students are over 60 years of age. Each year the Institute assists this program in conducting an applied research project in which students administer a large telephone survey. An advanced certificate program is also supported by the Institute; its in-depth courses focus on specific policy issues.

The Institute also publishes the *Journal of Aging and Social Policy*, a scholarly, peer-reviewed quarterly journal with an international perspective.

Core funding for the Gerontology Institute is provided by the Massachusetts Legislature. Major projects are funded through grants and contracts.

For more information, visit the University of Massachusetts Boston's Web site: www.umb.edu, Institute of Gerontology Web site at www.geront.umb.edu, or email: gerontology@umb.edu.

